



# DOE Bridge Inspection Status

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# Status of Operating Assets

June 2009		October 2009	
	Compliant Inspection Date	Compliant Inspection Date	No Inspection Date
All Vehicle Bridges	44%	65%	21%
- Public Access	67%	44%	44%
Train Bridges	50%	75%	25%
All Pedestrian Bridges	43%	67%	0%
- Public Access	100%	100%	0%

DOE Inventory: 60 Assets

Vehicle Bridges: 43 (34 controlled, 9 public)

Train Bridges: 5 controlled

Pedestrian Bridges: 12 (7 controlled, 5 public)



# What's Coming Next

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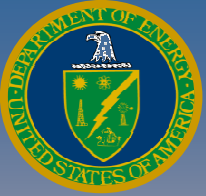
- FIMS change to provide Usage Codes for publically accessible bridges
- FIMS change to provide Safety Inspection Date for all bridges
- Programs complete necessary inspections, update usage codes and populate inspection dates
- FIMS Data Validation will include Safety Inspection Date for bridges
- Next NBI report due early Spring 2010



# Questions???

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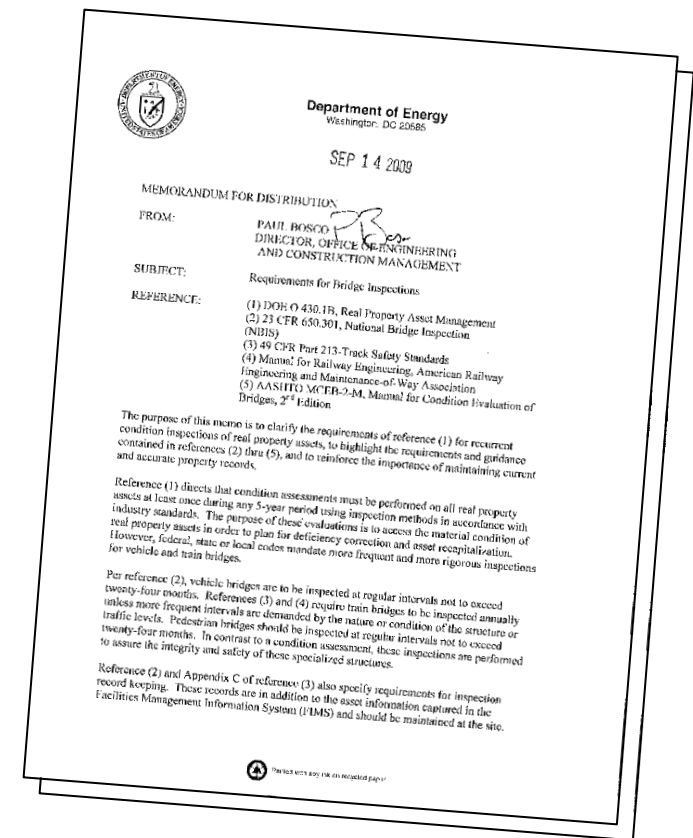
# BACKUP SLIDES



# DOE Requirements for Bridge Inspection

## OECM memo of 14 Sep 2009

- Clarifies inspection requirements
- Provides inspection standards
- Reinforces importance of maintaining current and accurate property records





# DOE Site Responsibilities for Bridge Inspection

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- **Establish a bridge safety program**
- **Employ a qualified bridge inspection organization**
- **Ensure routine inspections for each bridge**
- **Maintain inspection records for each bridge**



# Condition Assessment v. Safety Inspection

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- **Condition Assessment**
  - At least once every 5 years
  - Assess material condition
  - Used to plan for deficiency correction and asset recapitalization
- **Safety Inspection**
  - Intervals not to exceed 24 months (vehicle and pedestrian bridges) or 12 months (train bridges)
  - Assure structural integrity and safety
  - Used for compliance and reporting





# Safety Inspection Standards

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- **Vehicle Bridges**

- The 23 CFR Part 650, Subpart C - National Bridge Inspection Standards (NBIS), sets national standards for the proper safety inspection and evaluation of all highway bridges.

- **Train Bridges**

- 49 CFR Part 213, Appendix C - Statement of Agency Policy on the Safety of Railroad Bridges, Railroad Implementation of Bridge Safety Programs
- American Railway Engineering and Maintenance-of-Way Association (AREMA) Bridge Inspection Handbook

- **Pedestrian Bridges**

- Customized inspection plan based on AASHTO MCEB-2-M, Manual for Condition Evaluation of Bridges, 2nd Edition



# Property Record Maintenance

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- **All DOE-owned bridges**
  - Keep FIMS property record data current
- **For Vehicle Bridges**
  - Maintain data in accordance with the Recording and Coding Guide for the Structural Inventory and Appraisal of the Nation's Bridges, FHWA, December 1995
- **For Train Bridges**
  - Maintain data per 49 CFR Part 213, Appendix C



# Use FIMS Data to Support Annual NBI

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- **Establish Usage Codes for Public Access Bridges**
  - 1168 Public Access Bridge (Walking)
  - 1468 Public Access Bridge (Train)
  - 1768 Public Access Bridge (Vehicular)
- **Establish a New FIMS Data Field: Safety Inspection Date**
  - collected for the new bridge usage codes and the existing bridge usage codes (1168, 1468, 1768, 1169, 1469, 1769)



# FIMS Data Validation for Bridges

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- **Validate Safety Inspection Date**
- **Acceptable Source Document to Validate Safety Inspection Date may include:**
  - Program Manager Qualifications
  - Inspection Check sheet signed by Program Manager
  - Final Load Rating



# Vehicle Bridge References

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AASHTO MCEB-2-M, Manual for Condition Evaluation of Bridges, 2nd Edition<sup>1</sup>

FHWA Bridge Inspector's Reference Manual

DOE Condition Assessment Survey (CAS)  
Program Deficiency Standards & Inspection  
Methods Manual, Vol. 12

Note 1 *Manual for Bridge Evaluation*, 2nd Edition with 2001 and 2003 Interim Revisions supersedes both the *Guide Manual for Condition Evaluation and Load and Resistance Factor Rating (LRFR) of Highway Bridges*, 1st Edition and 2005 Interim Revisions



# Train Bridge References

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- Manual for Railway Engineering, American Railway Engineering and Maintenance-of-Way Association
- Ch 7, Bridge Safety Assurance, Track Compliance Manual, Federal Railroad Association, January 1, 2002
- <http://www.arena.org/>
- <http://www.fra.dot.gov/us/home>



# Pedestrian Bridge References

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## **Customized inspection plan**

- based on AASHTO MCEB-2-M, Manual for Condition Evaluation of Bridges, 2nd Edition

## **Trail Bridges**

- [http://www.fs.fed.us/eng/bridges/add\\_info.htm](http://www.fs.fed.us/eng/bridges/add_info.htm)